265 Practice of chest physiotherapy in adult patients with cystic fibrosis

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Objectives: The aim of our study was to assess the modalities of physiotherapy in adult patients with cystic fibrosis.
Method: A self-administered questionnaire was completed by 165 out-patients from September to December 2010. Mean age was 31.6 years (17–70 years) and mean FEV1 was 52.7±21.8% pred.
Results: Among the 153 patients (93%) who practiced CPT, 64 (42%) performed it every day (39 patients once a day and 25 patients at least twice a day). 32 patients (21%) performed CPT only 3 times a week or less. There was no relationship between the frequency of PTC sessions and FEV1.
145 patients (95%) said they were able to practice self-administered CPT, but 105 patients performed CPT with a physiotherapist (40 exclusively with a physiotherapist and 65 both alone and with a physiotherapist). CPT sessions with the physiotherapist took place exclusively at home in 24%, exclusively at the physiotherapist's office in 55% or at both places in 21%.
Nevertheless, 48 patients (31%) did not have a physiotherapist (41 patients performed self-administered CPT and 7 patients had CPT with the help of their relatives).
The average length of a CPT session was 23 minutes. Very few patients (14) used airway clearance therapy devices, mainly flutter device. Many patients (43%) did not know which technique of CPT they used.
Only 12 patients (7%) did not perform CPT and the main reason was lack of time. They had significantly higher FEV1 than the patients who practiced CPT.
Conclusion: Although the majority of adult CF patients perform CPT, less than half comply with the recommendation of daily CPT. It underscores the importance of patient's education.

266 Effect of IV antibiotics on ventilation and heart rate during sleep measured by respiratory inductive plethysmography

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Objective: To determine the effect of IV antibiotics (IVAB) for treatment of an exacerbation of respiratory disease on overnight ventilation and heart rate.
Methods: Adults with CF wore a respiratory inductive plethysmograph (LifeShirt) overnight at the start and end of an inpatient admission for treatment of a respiratory exacerbation. Outcome measures recorded on a breath-by-breath basis included ventilation (L/min) and heart rate (beats/min). Data from midnight to 6am were used for analysis. Mean values were calculated for each position (supine, prone, right lateral, left lateral). Data recorded during coughing (measured by throat microphone), during periods of activity and upright posture (measured by accelerometry) were excluded.
Results: Twelve (6M, 6F) adults participated. Mean(SD) FEV_1 improved over the duration of inpatient admission (pre-IVAB: 45(19)%predicted vs. post-IVAB 52(16)%predicted ($p = 0.024$). Two patients did not have data for a sufficient number of hours and were excluded from analysis. Mean ventilation decreased during the inpatient admission (supine ($n = 10$): 6.88 to 5.49 L/min; right lateral lying ($n = 9$): 6.62 to 6.49 L/min; left lateral lying ($n = 6$): 8.19 to 7.46 L/min). Mean heart rate decreased during the inpatient admission (supine ($n = 10$): 61.66 to 58.49 beats/min; right lateral lying ($n = 9$): 61.69 to 61.65 beats/min; left lateral lying ($n = 6$): 61.5 to 59.6 beats/min).
Conclusion: IVAB reduced overnight ventilation and heart rate in this sample of adults with CF. 24-hour physiological measurements may provide useful information on treatment effects in addition to "one-off" measurements.

267 Hygienic measures at a physiotherapy practice

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Hygienic measures are mandatory elements of today's care for individuals with cystic fibrosis. Infection control measures have become routine at CF clinics, but less attention has been paid to the hygiene for outpatient physiotherapy at the local practice. The poster will demonstrate standardized hands-on procedures and guidelines that are operated at the physiotherapy practice in the Haus Schutzengel in Hannover. The practice predominantly provides care for individuals with CF and lung transplant recipients. To minimize the risk of cross-infection, patients are booked for treatment according to their bacteriological status of airways colonization. *Pseudomonas aeruginosa*-free and *P. aeruginosa*-colonized patients are treated at different working days. Carriers with *Burkholderia cepacia* complex and novel emerging pathogens such as *Pandoraea* spp. are treated at patient's home and are not seen at the practice. No wash basins exist in treatment rooms. All faucets in the sanitary rooms are equipped with filters for tap water filtration. Lotions, creams and aquatic toys that are prone to bacterial colonization are not permitted for use in physiotherapy. After each treatment session the equipment is disinfected. Supplies for hand disinfection are provided in the waiting zone and each treatment room. Patients are trained in hand disinfection. Recommendations of the working group for physiotherapy of the German CF Foundation are available in German on the homepage of the Mukoviszidose e.V. (www.muko.info, click Arbeitskreis Physiotherapie; document freely available for downloading 'Hygieneempfehlungen zur Vermeidung von Übertragung von Krankheitserregern in der Physiotherapie').

268 UK national audit of physiotherapy clinical standards of care in cystic fibrosis

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Introduction: UK cystic fibrosis (CF) patients receive their care from Specialist CF Centres. The Association of Chartered Physiotherapists in CF (ACPCF) developed clinical standards for management of CF.
Method: An evaluation tool based on 7 clinical standards was sent to 51 UK CF specialist centres (24 adult, 27 paediatric). The aim was to consider standards as a benchmark for service provision, demonstrate where these were achievable and recommend improvement in clinical management based on good practice evidenced.
Results: Responses from 82% of CF centres were collated. This included information on the management of 7745 patients.30% of adult and 66% of paediatric units supported network clinics enabling sharing of expertise. 70% of adult units were involved in transition ensuring seamless care between adult and child services. 86% of centres implemented best practice using local guidelines.60% of centres conducted research whilst evaluating and maintaining clinical competence. 45% of centres provided standardised care pathways and others recognised this as an area for development.74% of units accessed interpreters and educational material in various formats.
Conclusion: This audit highlights centres providing excellent standards of care. Where social demographics are diverse, communication over a wide range occurs. Despite financial pressures professional development and implementation of local and national guidelines continues. The ACPCF will make recommendations to improve clinical standards nationally. With on-going audit and information sharing, it is expected that patient care will continue to advance, leading to improved outcomes and quality of life in this growing population.